

## TRIPSACUM IN PERU

BY

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EXCEPT for a single, verbal report<sup>2</sup> that Asplund identified *Tripsacum* near Tingo María, Department of Huánuco, and considered it an escape from cultivation, no other literature references (including Weberbauer (1) and MacBride (2) ) give any indication that *Tripsacum* might be native to Peru.

The identification of races of tripsacoid maize on the eastern slopes of the Andes and in the Amazon basin of Peru had suggested the probable occurrence of *Tripsacum* sympatric with maize and might explain the introgression of tripsacoid characters into maize in these areas (3).

Cutler and Anderson (4) presented evidence of widespread distribution of *Tripsacum* in the Amazon basin. They considered all of the South American specimens that they studied as belonging to *Tripsacum australe*. I have found *Tripsacum* growing wild twice in the Hualaga valley region of north-central Peru (July 4, 1963). The first collection was made at Puerto Rico, formerly called Juanjuicillo, on a river bank on the east side of the

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Río Huallaga. There were two separate clumps of plants, rooted about one and one half to two meters above the water level, at that time. The plants had green stalks; the leaves were of medium width; and the plants were in full bloom. Travelling northwards by motor boat, I could not find any other clumps of *Tripsacum*, even though I scanned both sides of the river at normal cruising speed. Further explorations of Huallaga affluents were not carried out, except in the lower Río Mayo section. On the Mayo, near its confluence with the Huallaga, abundant masses of plants which resembled *Tripsacum* were found on high river banks. Collections were made for transplanting. These plants had red stalks, hairy sheaths and narrow leaves. No herbarium specimens of this colony were preserved, and since the plants had not developed inflorescences, no positive identification was possible.

A third and large mass of *Tripsacum* with fully developed inflorescences was found along the road between the Tarapoto and Granja Porvenir, a livestock farm operated by SIPA (a dependency of the Peruvian Ministry of Agriculture). These plants had sun-red leaf sheaths, and they were rather hairy and had rather narrow leaves.

Live plants from all three sites were planted at the Granja Porvenir near Tarapoto, but unfortunately the plants that survived transplanting were destroyed during construction work.

It was possible for me to collect herbarium material in full bloom again in 1964 along the road from Granja Porvenir to Tarapoto. These were compared at the Botanical Museum of Harvard University with herbarium specimens of *Tripsacum australe* collected by Cutler. I carried out this comparison in the winter of 1965, and the assistance of Dr. Paul C. Mangelsdorf, Director of

the Museum, in this study is gratefully acknowledged. From the comparison of several morphological characters — including leaf blades, sheaths, and inflorescences — I concluded that the *Tripsacum* growing in the Porvenir-Tarapoto locality of the Huallaga valley fall well within the range of variation of *Tripsacum australe*.

#### LITERATURE REFERENCES

1. Weberbauer, A. 1945. "El mundo vegetal de los andes peruanos." Ministerio de Agricultura. Lima.
2. MacBride, J. Francis. 1936. "Flora of Peru." Part 1. Field Museum of Natural History. Publication No. 351. Chicago.
3. Grobman, A., W. Salhuana and R. Sevilla (*in collaboration with P. C. Mangelsdorf*) 1961. Races of Maize in Peru: Their origin, evolution and classification." Nat. Acad. of Sci., Nat. Res. Council U.S. Publ. 915.
4. Cutler, H.C. and E. Anderson. 1941. "A preliminary survey of the genus *Tripsacum* ." Ann. Mo. Bot. Gard. 28: 249-269.